

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments see Remarks, filed 02/11/2008, with respect to both the claim objections, and rejection(s) of claim(s) 7 & 8 under USC § 102 (b) have been fully considered and are persuasive. Therefore, the objections and rejections have been withdrawn. However, upon further consideration, new ground(s) of rejections are made in view of the Compendium of Methods for the Determination of toxic Organic Compounds in Ambient Air – 2<sup>nd</sup> Edition, U.S. Environmental Protection Agency (January 1999) in view of Günther et al.

With respect to both the claim rejection(s) of claim(s) 1, 4, & 5 under USC § 103 (a) of Amirav et al, Chace et al and in further view of McKelvy et al have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

2. In regards to Claim 6, Applicants state that a filter is not the same as an absorbent trap. Examiner respectfully disagrees. It is generally known in the filter art that a filter may consist of an absorbent trap. Examiner would like to refer to US4141703 (See Column 10 lines 62-67); US6167696 (See Abstract), and US4487618 (See Abstract), and US6180010 (See Column 1 lines 30-61) to support this statement. The rejection is maintained.

### ***Allowable Subject Matter***

3. The indicated allowability of claim(s) 2 & 3 is withdrawn in view of the newly discovered reference(s) to the Compendium of Methods for the Determination of toxic Organic Compounds in Ambient Air – 2<sup>nd</sup> Edition, U.S. Environmental Protection Agency

(January 1999) and Günther et al. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Amirav et al (US5742050).

Applicants' claim is toward a method for collecting samples for analysis of impurities in or on a sample.

Amirav et al discloses a method for collecting samples for analysis of impurities in or on a sample comprising: A). Irradiating a sample area with laser energy sufficient to vaporize an analyte or break down a material containing an analyte and vaporizing the analyte (Column 4 lines 38-40); and B). Sweeping said vaporized analyte into an absorbent trap (Column 4 lines 43-44; note: a filter/absorbent trap is in between the laser desorption and the GC).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Applicants' claims are toward a sample collector assembly.

8. Claims 2 & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Compendium of Methods for the Determination of toxic Organic Compounds in Ambient Air – 2<sup>nd</sup> Edition (further cited as “The Compendium”) in further view of Günther et al. Regarding Claims 2 & 3, The Compendium discloses a sample collector assembly comprising: A). A frame forming a sampling enclosure with a sampler opening (See Method TO-13A; Figure 3; Assembled Sampling Module); C). An absorbent trap mounted to said frame and in communication with said sampling enclosure (See Table 1; Sampling and Apparatus Approach Column for all methods); and D). A gas moving system mounted to said frame for providing a flow of gas to said sampling enclosure for moving vaporized analyte to said absorbent trap; wherein said sample collector includes a quick disconnect for mounting and removal of said absorbent trap (See Quick-Connects for module which is part of the sorbent trap; Figure 6). The Compendium does not disclose B). A mirror and lens control assembly mounted to said frame and in

communication with said sampling enclosure, for focusing a laser beam onto a sample through said sampler opening and vaporizing an analyte from a sample. Günther et al discloses such an assembly (See Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify The Compendium and directly integrate or modify the sample assembly of The Compendium with the mirror and lens control assembly of Günther et al because this would eliminate associated disadvantages such as the interferences due to contamination of solvents, reagents, glassware, and sampling hardware (See Table 2; Method to-13A; Disadvantages) as well as create a portable analysis system that would eliminate the need of sending the samples away to a laboratory for analysis.

9. For Claim 3, The Compendium discloses a sample collector assembly comprising: A). A frame forming a sampling enclosure with a sampler opening (See Method TO-13A; Figure 3; See Assembled Sampling Module); C). An absorbent trap mounted to said frame and in communication with said sampling enclosure (See Table 2; Sampling Apparatus and Approach); and D). A gas moving system mounted to said frame for providing a flow of gas to said sampling enclosure for moving vaporized analyte to said absorbent trap (See Method TO-13A; Figure 6). Günther et al discloses B). A mirror and lens control assembly mounted to said frame and in communication with said sampling enclosure, for focusing a laser beam onto a sample through said sampler opening and vaporizing an analyte from a sample (See Günther et al, Fig. 1). Neither the Compendium nor Günther et al discloses said sample collector includes a magnetic holder for holding the sample collector against a magnetic surface. The

Compendium does disclose the use of quick release connections for the module (See Method TO-13A; Figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the quick-release connections of the module and replace them with magnets since Method TO-13A discloses that both the holder and the filter screens are both made of metal (holder) and stainless steel (screens) (See Page 13A-7; 8.1.2).

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over of the Compendium of Methods for the Determination of toxic Organic Compounds in Ambient Air – 2<sup>nd</sup> Edition in view to Günther et al.

11. Applicants' claims are toward a method for collecting samples for analysis of impurities in or on a sample.

12. Regarding Claims 6-8, The Compendium (See Method TO-13A) discloses a method for collecting samples for analysis of impurities in or on a sample comprising: B). Sweeping said vaporized analyte into an absorbent trap (See Table 1; Method TO-13A; Sample and Analysis Approach). Method 13A does not disclose the use of laser energy. Günther et al discloses the step of A). Irradiating a sample area with laser energy sufficient to vaporize an analyte or break down a material containing an analyte and vaporizing the analyte (See Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Method TO-13A and directly include the holder of the Compendium with the sample holder in Günther et al, with the mirror and lens control assembly because this would eliminate associated disadvantages such as the interferences due to contamination of solvents, reagents,

glassware, and sampling hardware (See The Compendium; Table 2; Method to-13A; Disadvantages). Additional disclosures included: A). The additional steps of C). Placing the absorbent trap into a thermal desorber and heating the absorbent trap to vaporize the analyte (See The Compendium, Table 1; Method TO-1; Sampling and Analysis Approach and D). Measuring the vaporized analyte (See The Compendium Table 1; Method TO-1; Sampling and Analysis Approach); and E). The vaporized analyte is measured by GC-MS, GC, I.R. analysis or nuclear techniques (See The Compendium Table 1; Methods TO-1 & TO-13A; Sampling and Analysis Approach).

13. Alternatively, Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Günther et al in view of the Compendium of Methods for the Determination of toxic Organic Compounds in Ambient Air – 2<sup>nd</sup> Edition. Regarding Claims 6-8, Günther et al discloses A). Irradiating a sample area with laser energy sufficient to vaporize an analyte or break down a material containing an analyte and vaporizing the analyte (See Figure 1). Günther et al further discloses B). Sweeping said vaporized analyte (See Figure 1; note: arrow towards ICP torch) Günther et al further discloses the sweeping is into an absorbent trap. Günther et al does not disclose the use of GC/MS for its analysis. The Compendium does disclose this feature (See Table 2; Sampling and Analysis Approach). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Method TO-13A and directly include the holder of the Compendium with the sample holder in Günther et al, with the mirror and lens control assembly because this would eliminate associated disadvantages such as the interferences due to contamination of solvents, reagents,

glassware, and sampling hardware (See The Compendium; Table 2; Method to-13A; Disadvantages). Additional disclosures included: A). The additional steps of C). Placing the absorbent trap into a thermal desorber and heating the absorbent trap to vaporize the analyte (See The Compendium; Table 1; Method TO-1; Sampling and Analysis Approach); D). Measuring the vaporized analyte (See Table 1; Method TO-1; Sampling and Analysis Approach); and E). The vaporized analyte is measured by GC-MS, GC, I.R. analysis or nuclear techniques (See the Compendium; Table 1; Methods TO-1 & TO-13A; Sampling and Analysis Approach).

### ***Telephonic Inquiries***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US: 4220414 & 6946300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOBBY RAMDHANIE whose telephone number is (571)270-3240. The examiner can normally be reached on Mon-Fri 8-5 (Alt Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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